

REMARKS

This amendment is responsive to the Office Action mailed December 4, 2002 wherein claims 1-8 and 10-17 were rejected under 35 USC 012(e) as being unpatentable by Fujita et al. (US Patent 6,169,401) and claim 9 was rejected under 35 USC 103(a) as being unpatentable over Fujita et al. Also, in the Office Action, Figure 1 was objected to. In this amendment, Figure 1 has been amended and claims 1 and 11 have been amended. No new matter has been added.

Claims 1-17 remain pending in this application. Reconsideration in light of the above amendments and the following remarks is respectfully requested.

Formal Matters

Figure 1 has been amended to delete reference number 118. In the Office Action dated June 11, 2002, the Examiner stated that Figure 1 was objected to for including a reference sign "18" not mentioned in the description. The present Office Action does not indicate receipt of the drawing amendments and therefore Applicants are resubmitting the drawing change. Applicants respectfully submit that no reference sign "18" was found in Figure 1. However, Applicants discovered that reference sign "118" was inadvertently not mentioned in the description. Figure 1 has been amended to delete "118". In the present Office Action, Figure 1 was also objected to for lack of designation of "Prior Art". Applicants' changes to Figure 1 include a "Prior Art" legend. Thus, Applicants respectfully submit that Figure 1 as amended is now in compliance with 37 CFR 1.84(p)(5) and withdrawal of the objection is respectfully solicited.

Claims Define Allowable Subject Matter over the Applied References

The rejection of claims 1-8 and 10-17 over the Fujita reference are respectfully traversed. Independent claims 1 and 11 have been amended to further recite a radio frequency (RF) coil assembly adapted to resonate at substantially high frequencies, the RF coil assembly having a plurality of conductors of selected length and selected width to minimize inductance. Support for the amendments can be found in the specification at, for example, paragraph 16. "Anticipation requires the disclosure in a single prior art

reference of each element of the claim under construction." W.L. Gore & Associates v. Garlock, Inc. 220 USPQ 303, 313 (Fed. Cir. 1983). The Fujita reference does not disclose each element of the present invention as claimed in independent claims 1 and 11. Specifically, the Fujita reference does not show or suggest Applicants' conductors of selected length and width for minimizing conductor inductance. The Fujita reference merely discloses a quadrature highpass RF surface coil assembly. Nowhere does the Fujita reference show, disclose or teach conductors of selected width for minimizing conductor inductance. By contrast, the Fujita reference merely discloses capacitive legs or elements having differing lengths. Nowhere does the Fujita reference teach, disclose or show elements having a selectable width. The sections of the Fujita reference relied upon by the Examiner in making the rejection (col. 4, lines 57-67 and col. 5, lines 1-9) are completely silent on selecting a width to minimize conductor inductance. Further, the Fujita reference discloses differing lengths. Applicants respectfully submit that the Fujita reference does not show or disclose each element of Applicants' present invention, as claimed in independent claims 1 and 11, particularly as amended. Claims 2-10 and 12-17 depend directly or indirectly from claims 1 and 11 and therefore are similarly allowable. Applicants respectfully request withdrawal of the rejection under 35 USC 102(e).

The rejection of claim 9 under 35 USC 103(a) is respectfully traversed. With respect to claim 9, Applicants respectfully submit that the Fujita reference does not disclose, suggest or teach the RF coil assembly having conductors having segmented slots for reducing eddy currents induced by the gradient coils of the MRI system. For reasons stated with reference to the rejection under 35 USC 102, Applicants submit claim 1 from which claim 9 depends is patentable over the Fujita reference in that the Fujita reference does not show, suggest or disclose Applicants' recited invention. Applicants respectfully submit that the Examiner has not provided a *prima facie* case of obviousness by merely stating that it would be obvious to one of ordinary skill to modify Fujita since there is no suggestion or disclosure to suggest motivation for one of ordinary skill to modify Fujita except for Applicants' invention. Applicants respectfully submit that the invention as recited in claim 9 is not obvious and is further allowable by dependency from claim 1 as

discussed with reference to the rejection under 35 USC 102(e). Withdrawal of the rejection of claim 9 under 35 USC 103(a) is respectfully solicited.

In view of the foregoing amendment and for the reasons set out above, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number below.

Respectfully submitted,



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Attachments: AMENDED CLAIMS 3/4/03
REQUEST FOR APPROVAL OF AMENDMENT TO THE
DRAWINGS

ATTACHMENT - CLAIMS AS SUBMITTED 3/4/03

1. (Twice Amended) A radio frequency (RF) coil assembly for a very high field Magnetic Resonance Imaging (MRI) system comprising:

a plurality of conductors arranged cylindrically and disposed about a patient bore tube of the MRI system, said conductors of a selected length and having a width selected for said RF coil assembly to resonate at substantially high frequencies and to minimize conductor inductance; and,

a plurality of capacitive elements for electrically interconnecting said plurality of conductors at respective ends of said conductors.

11. (Twice Amended) A very high field Magnetic Resonance Imaging (MRI) system comprising:

a radio frequency (RF) coil assembly adapted to resonate at substantially high frequencies, the RF coil assembly having a plurality of conductors of selected length and selected width to minimize inductance;

a RF coil shield assembly adapted to further reduce the inductance of the conductors contained within the RF coil assembly; and,

a RF drive cable assembly adapted to electrically connect to the RF coil assembly.